

**TITLE 14. PUBLIC SERVICE CORPORATIONS;
CORPORATIONS AND ASSOCIATIONS;
SECURITIES REGULATION**

**CHAPTER 2. CORPORATION COMMISSION-FIXED
UTILITIES**

**ARTICLE 18. RENEWABLE ENERGY STANDARD
AND TARIFF**

March 14, 2006

R14-2-1801. Definitions

- **“Distributed Renewable Energy Requirement”** is a portion of the Annual Renewable Energy Requirement that must be met with Renewable Energy Credits derived from resources that qualify as Distributed Renewable Energy Resources pursuant to R14-2-1802(B).
- **“Renewable Energy Credit”** is the unit created to track kWh derived from an Eligible Renewable Energy Resource or kWh equivalent of Conventional Energy Resources displaced by Distributed Renewable Energy Resources.

R14-2-1802. Eligible Renewable Energy Resources

- **B. “Distributed Renewable Energy Resources”** are applications of the following defined technologies that are located at a customer’s premises and that displace Conventional Energy Resources that would otherwise be used to provide electricity to Arizona customers:

- 2. **“Biomass Thermal Systems”** and **“Biogas Thermal Systems”** are systems which use fuels as defined in R14-2-1802(A)(1) and (2) to produce thermal energy and that comply with Environmental Protection Agency Certification Programs or are permitted by state, county or local air quality authorities. For purposes of this definition “Biomass Thermal Systems” and “Biogas Thermal Systems” do not include biomass and wood stoves, furnaces and fireplaces.

- **5. “Renewable Combined Heat and Power System”** is a distributed generation system, fueled by an Eligible Renewable Energy Resource, that produces both electricity and useful renewable process heat. Both the electricity and renewable process heat may be used to meet the Distributed Renewable Energy Requirement.

R14-2-1803. Renewable Energy Credits

- A. One Renewable Energy Credit shall be created for each kWh derived from an Eligible Renewable Energy Resource.**

- B. For Distributed Renewable Energy Resources, one Renewable Energy Credit shall be created for each 3,415 British Thermal Units of heat produced by a Solar Water Heating System, a Solar Industrial Process Heating and Cooling System, Solar Space Cooling System, Biomass Thermal System, Biogas Thermal System, or a Solar Space Heating System.**

- **B.** An Affected Utility's Annual Renewable Energy Requirement shall be calculated each calendar year by applying the following applicable annual percentage to the retail kWh sold by the Affected Utility during that calendar year:

• 2006	1.25%	2007	1.50%
• 2008	1.75%	2009	2.00%
• 2010	2.50%	2011	3.00%
• 2012	3.50%	2013	4.00%
• 2014	4.50%	2015	5.00%
• 2016	6.00%	2017	7.00%
• 2018	8.00%	2019	9.00%
• 2020	10.00%	2021	11.00%
• 2022	12.00%	2023	13.00%
• 2024	14.00%	After 2024	15.00%

- **B.** An Affected Utility's Distributed Renewable Energy Requirement shall be calculated each calendar year by applying the following applicable annual percentage to the Affected Utility's Annual Renewable Energy Requirement:

– 2007	5%
– 2008	10%
– 2009	15%
– 2010	20%
– 2011	25%
After 2011	30%

R14-2-1810. Uniform Credit Purchase Program

- **A.** The Director of the Utilities Division shall establish a **Uniform Credit Purchase Program Working Group**, which will study issues related to implementing **Distributed Renewable Energy Resources**. The Working Group shall address the consumer participation process, budgets, incentive levels, eligible technologies, system requirements, installation requirements, and any other issues that are relevant to encouraging the implementation of Distributed Renewable Energy Resources. No later than March 1, 2007, the Director of the Utilities Division shall file a Staff Report with recommendations for utility credit purchase programs.
- **B.** No later than July 1, 2007, each Affected Utility shall file a Credit Purchase Program for Commission review and approval.

Sample Tariff

- Unless otherwise ordered by the Commission, the Renewable Energy Standard Surcharge shall be assessed monthly to every retail electric service. This monthly assessment will be the lesser of \$0.004988 per kWh or:
- For **residential** customers, **\$1.05** per service,
- For **non-residential** customers, **\$39.00** per service,
- For non-residential customers whose metered demand is 3,000 kW or more for three consecutive months, \$117.00 per service,
- For non-metered services, the lesser of (1) the load profile or otherwise estimated kWh required to provide the service in question or (2) the service's contract kWh shall be used in the calculation of the surcharge.

CUSTOMER-SITED TECHNOLOGIES

Generating

- Solar Electric
- Photovoltaics
- Solar Thermal Electricity
- Small Wind
- Biogas Generator
- Biomass Generator
- Geothermal Generator
- New Hydro (10 MW or less)
- Fuel cells that use only renewable fuels
- Hybrid Wind and Solar Electric

Non-Generating

- Commercial Solar Pool Heaters
- Geothermal Space Heating and
- Process Heating
- Non-residential Daylighting
- Solar HVAC
- Heating
- Cooling
- Water Heating
- Solar Industrial Process
- Heating and Cooling
- Solar Space Cooling
- Solar Water Heating
- Small Scale
- Large Scale
- Biomass Thermal
- Biogas Thermal

UCPP Process Descriptions

- Customer Inquiry
- Reservation, Cancellation and Extension
- Installation & Inspection
- Interconnection
- Reporting
- Consumer Protection
- Contractor Certification
- Education & Promotion

UCPP Technology Summary

- Technology Description
- Applications & Markets
- Cost Range
 - Present
 - Projected long term - (10 yr)
- Proposed Incentive (based on kWh production)
 - Level (monetary)
 - Non-monetary incentives

Proposed Program

Small Solar Water Heating

- \$0.50/kwh equivalent first year energy savings based on SRCC rating
- Limited to 10,000 kwh/yr rated systems
- No other significant changes

Proposed Program

Solar HVAC

- PBI only
- \$0.16/kwh equivalent cooling
- \$0.07/kwh equivalent heating
- Basis
 - 10 year contract
 - Total payout capped at 50% of project cost (plus financing)
- APS owns credits for 10 years
- 365 days allowed for completion from reservation date

Proposed Program

Large Solar Water Heating

- PBI only
- \$0.07/kwh equivalent
- Basis
 - 10 year contract
 - Total payout capped at 50% of project cost (plus financing)
- APS owns credits for 10 years
- 365 days allowed for completion from reservation date

Proposed Program

Other Significant Items

- \$500K per customer per year cap
- Third party payments allowed

Proposed Program

Biomass HVAC

- PBI only
- \$0.04/kwh equivalent cooling
- \$0.02/kwh equivalent heating
- Basis
 - 10 year contract
 - Total payout capped at 50% of project cost (plus financing)
- APS owns credits for 10 years
- 365 days allowed for completion from reservation date

Proposed Program

Biomass Process Heat / Cooling

- PBI only
- \$0.02/kwh equivalent cooling
- \$0.01/kwh equivalent heating
- Basis
 - 10 year contract
 - Total payout capped at 50% of project cost (plus financing)
- APS owns credits for 10 years
- 365 days allowed for completion from reservation date

Schedule

- Public Comment Hearing
 - March 23, 2006 10:00a.m.
- Uniformed Credit Purchase Program
 - Goal end of summer